Campylobacter

Campylobacteriosis is a Class C Disease. It must be reported to the state within five business days.

Campylobacter is the most common bacterial cause of diarrheal illness in the United States. It is caused by the bacteria *Campylobacter jejuni* and less commonly *C. coli.*

Epidemiology

The most common reservoirs for *Campylobacter* are poultry and cattle, with more than half of the raw chicken in the U.S. market containing the bacteria. Water or milk may be a source for sporadic cases or outbreaks. Most cases of campylobacteriosis are associated with handling of raw poultry or eating raw or undercooked poultry meat. A main source of cross-contamination of raw or lightly cooked foods is the use of cutting boards that have not been cleaned thoroughly after cutting poultry or meat.

Other animals (puppies, kittens, other pets, swine, sheep, rodents and birds) can also be infected. Some people acquire their infections from contact with the infected stool of an ill dog or cat. It is estimated that approximately 5% of human cases originate from contact with pets, particularly dogs and cats. In a 1985-published survey carried out in Baton Rouge, Louisiana, the prevalence of *Campylobacter* among cats was estimated at 1%.

The organism is not usually spread from person-to-person, but transmission can result in illness if the infected person is a small child, or is producing a large volume of diarrhea. Although many cases of *Campylobacter* infection are asymptomatic, symptoms can include diarrhea, abdominal pain, malaise, fever, nausea and vomiting.

Campylobacteriosis is estimated to affect over 1.5 million persons every year, with most cases going undiagnosed or unreported. In 2017, there were approximately 20 cases for each 100,000 persons in the U.S. population reported to the Centers for Disease Control and Prevention (CDC). Virtually all cases occur as isolated, sporadic events, rather than as a part of outbreaks. Although campylobacteriosis does not commonly cause death, it has been estimated that approximately 76 persons with *Campylobacter* infections die each year.

Incidence

Reporting of *Campylobacter* began in Louisiana in 1988. An upward trend in reported cases began around 2015 and 2016, coinciding with the introduction of culture-independent diagnostic tests (CIDTs) (Figure 1 and 2). Since then, case counts have steadily increased, reaching an all-time high in 2023 with 962 cases being reported. The recent increase in reported cases is likely due to the growing availability and widespread use of CIDTs. Because these tests are less specific than traditional culture methods, cases without confirmatory testing are classified as “probable.” This trend likely reflects improved detection rather than an actual rise in disease prevalence.

Figure 1: *Campylobacter* Incidence Rates - Louisiana, 1990-2023

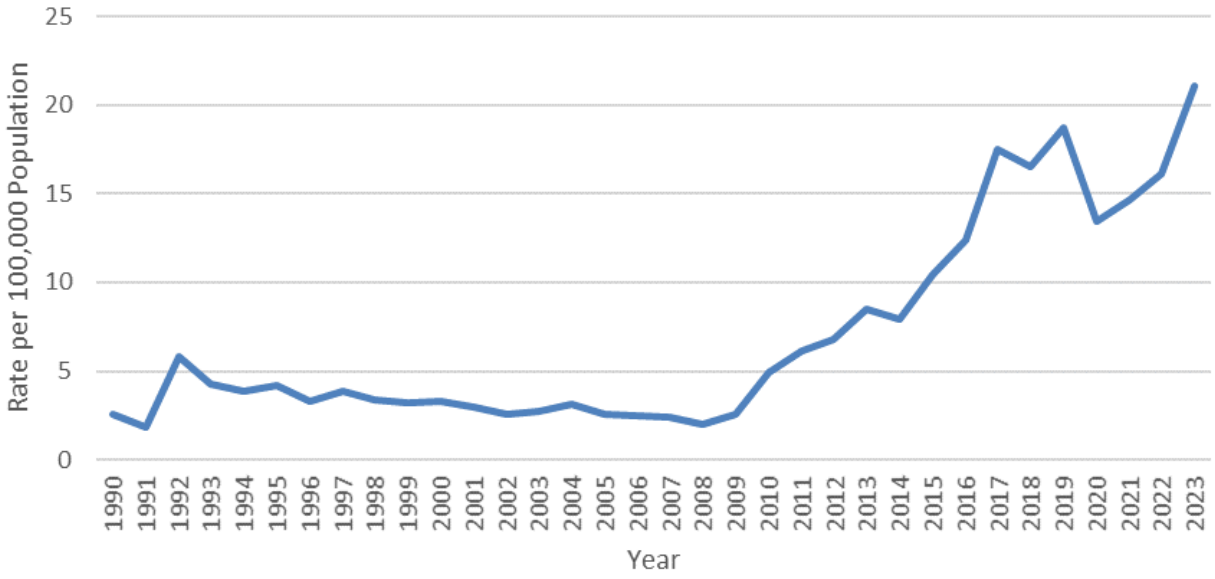
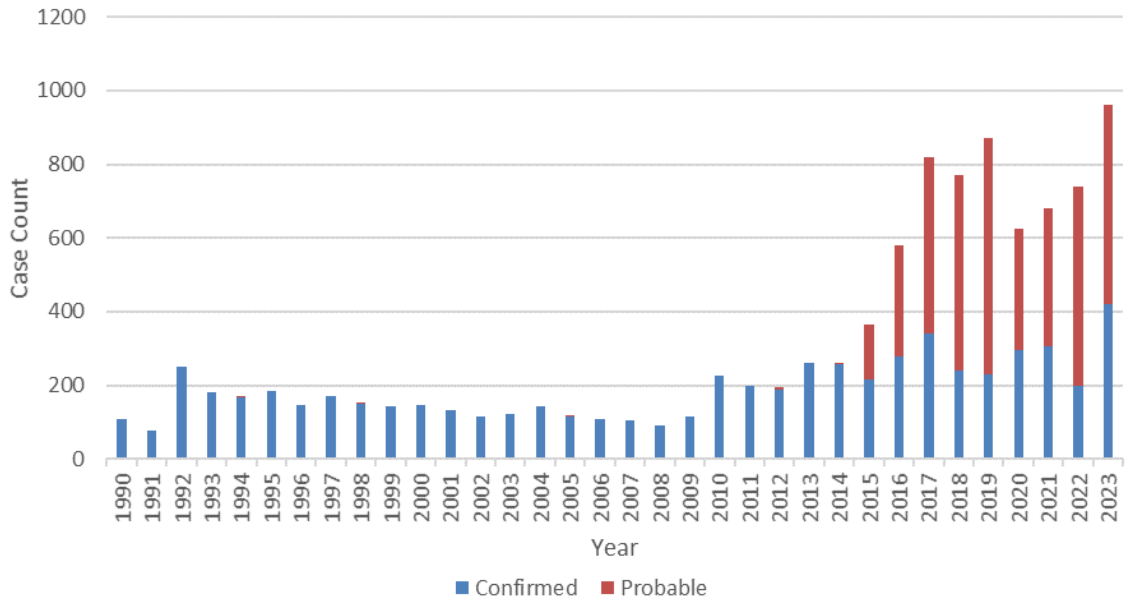
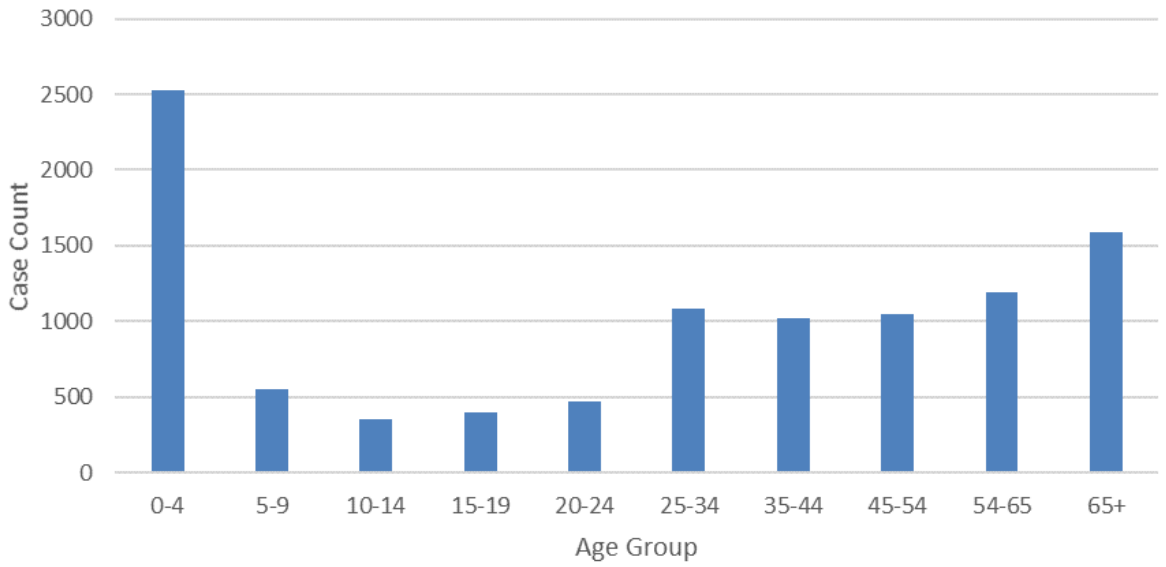


Figure 2: *Campylobacter* Cases: Confirmed and Probable – Louisiana, 1990-2023



The age group distribution is similar to that of most enteric diseases, with the highest rates in infants and young children (Figure 3).

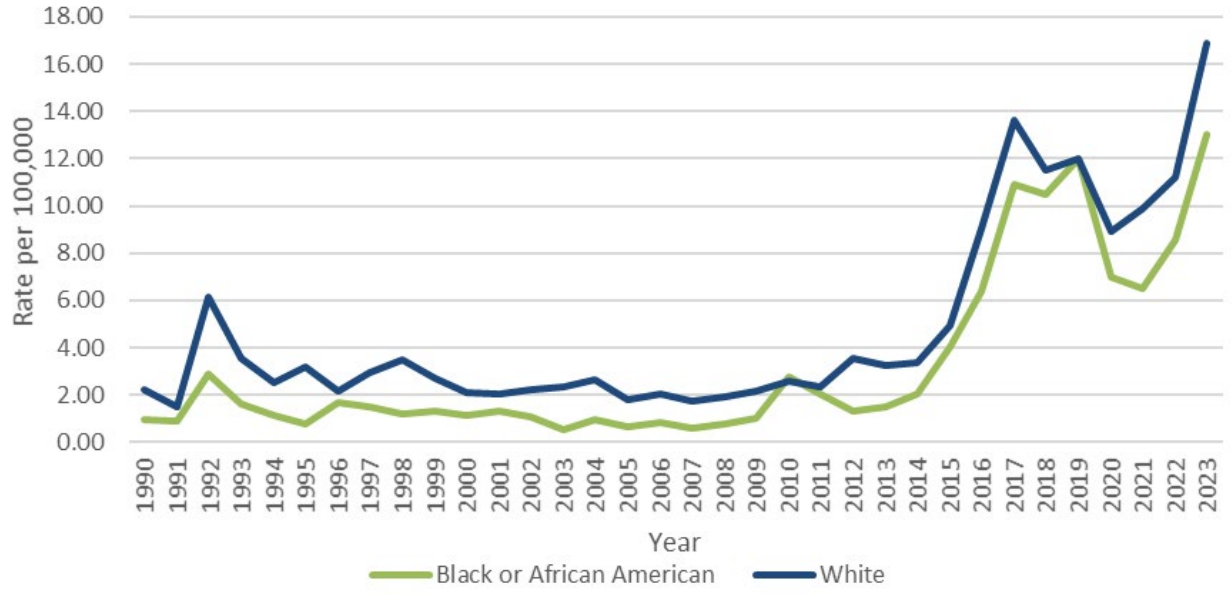
Figure 3: Campylobacter incidence rates by age - Louisiana, 1990-2023



The highest rates are observed among infants, an age group that is not thought of as routinely being exposed to poultry meat. These cases result from cross-contamination when infants are fed. High infant rates are partially explained by reporting bias, as they are more likely to be taken to a healthcare provider for diarrhea and to have stool cultures performed compared to older children or adults. A slight increase in rates is also seen among the elderly.

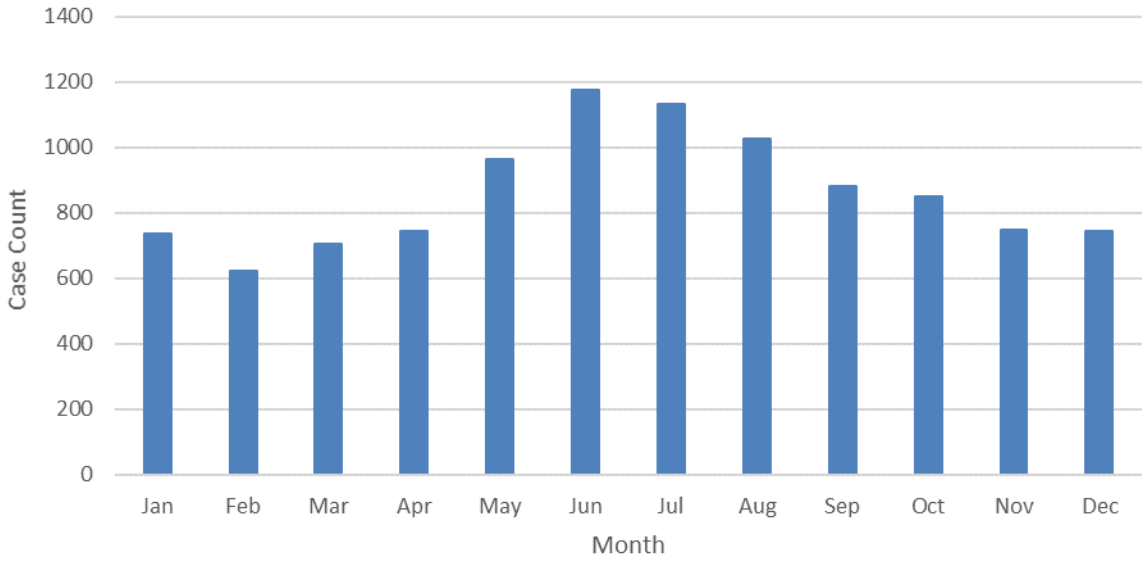
The distribution by race shows slightly higher rates among White individuals compared to Black or African American individuals (Figure 4). However, race is not consistently reported in all case records, which may affect the accuracy of these comparisons.

Figure 4: *Campylobacter* Incidence Rates by Race - Louisiana, 1990-2023



Campylobacter has a clear seasonal distribution, with an increased number of cases reported during the summer months (Figure 5).

Figure 5: *Campylobacter* average annual cases by seasonal distribution - Louisiana, 1990-2023



The geographical distribution of *Campylobacter* in Louisiana reflects the reporting of *Campylobacter* cases and not the true distribution of cases (Table).

Table: *Campylobacter* 10-Year Incidence Rate by Parish - Louisiana, 2014-2023

Parish	Incidence Rate 2014-2023	Parish	Incidence Rate 2014-2023
Acadia	38.47	Madison	7.48
Allen	13.95	Morehouse	13.40
Ascension	11.36	Natchitoches	11.04
Assumption	5.51	Orleans	7.54
Avoyelles	14.73	Ouachita	10.97
Beauregard	16.30	Plaquemines	3.02
Bienville	13.60	Pointe Coupee	7.49
Bossier	8.95	Rapides	18.55
Caddo	8.22	Red River	13.49
Calcasieu	21.25	Richland	21.79
Caldwell	24.47	Sabine	17.65
Cameron	9.72	Saint Bernard	3.75
Catahoula	14.95	Saint Charles	5.35
Claiborne	6.58	Saint Helena	12.33
Concordia	3.12	Saint James	5.32
De Soto	7.37	Saint Landry	27.68
East Baton Rouge	11.69	Saint Martin	37.34
East Carroll	18.20	Saint Mary	13.78
East Feliciana	16.51	Saint Tammany	8.64
Evangeline	26.67	St John the Baptist	5.19
Franklin	19.53	Tangipahoa	9.17
Grant	21.14	Tensas	9.20
Iberia	69.49	Terrebonne	7.72
Iberville	12.64	Union	16.98
Jackson	31.64	Vermilion	30.30
Jefferson	4.90	Vernon	10.79
Jefferson Davis	39.14	Washington	15.47
La Salle	1.65	Webster	8.94
Lafayette	97.39	West Baton Rouge	13.11
Lafourche	26.90	West Carroll	20.98
Lincoln	7.35	West Feliciana	9.09
Livingston	12.57	Winn	14.99